

**Work Order ID 80159**

Monday, February 13, 2012 8:24:47 AM

Item ID: D412-702-021

Accept

**\*80159\***Ship Bagged Set  
~~Hold End Set~~  
Page 1

Revision ID:

Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 2/13/2012 Start Qty: 1.00

**\*1\***

Required Date: 2/17/2012 Req'd Qty: 1.00

**\*1\***

Reference:

Approvals: Process Plan: *JMF*

Date: 2-02-13 Tooling:

Cust Item ID:

QC:

Date:

SPC (Y/N):

Date:

Run Start

**\*NR1\***

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
N/A	Rev N/A

100 \*100\*

DOCUMENT CONTROL

0.00

DC

Document Control

Memo

0.00

Photocopy bluefile and create labels per PPP D412-702-021 CHG003

S 12/02/13

MLJ 12/02/13

110

\*110\*

Packaging

Packaging

Pick Kit

0.00

SP 12-02-13.

*SP*

120

\*120\*

QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

S 12/02/13

**Work Order ID 80159**

Monday, February 13, 2012 8:24:47 AM

**\*80159\***

Page 2

Item ID: D412-702-021

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

Revision ID:

Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 2/13/2012 Start Qty: 1.00 **\*1\***Required Date: 2/17/2012 Req'd Qty: 1.00 **\*1\***

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

**\*130\***

Packaging

Packaging

0.00

12/12/27

Packaging

Memo  
Identify and pack for shipping as per PPP D412-702-021  
Location: *Revc*

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Quality Control

Memo

0.00

MLJ 12/02/27

MF  
12-02-27

# Picklist Print

Monday, February 13, 2012 8:24:46 AM

Page 1

4

Work Order ID: 80159

Parent Item: D412-702-021

Start Date: 2/13/2012

Required Date: 2/17/2012

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B Removed Manufacturing 05-11-08 JLM

IPP Rev:C06.04.03As per DSI9324 JLM

IPP rev D 06.12.14 per ecn 871 EC

IPP Rev:E 07-03-14 As per DSI 9351 JLM

IPP Rev:F 07-07-28 As per Rev E JLM Verified By:ec IPP Rev.G 11.05.31 DSI

9559 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-13A Bolt		Purchased	No			120	Each	1,357.0000	4	SP 4			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST357		1357							
				119449		59							
				<u>120187</u>		798							
				120422		500							
AN4-20A Bolt		Purchased	No			120	Each	585.0000	8	SP 8			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		76							
				116419		76							
				ST359		509							
				104016		24							
				<u>117514</u>		185							
				118983		100							
				119127		200							
AN4-5A Bolt		Purchased	No			120	Each	1,096.0000	4	SP 12-02-13			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST355		1096							
				116549		6							
				<u>117508</u>		90							
				120562		1000							

# Picklist Print

Monday, February 13, 2012 8:24:46 AM

Page 2

Work Order ID: 80159

Parent Item: D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 2/13/2012

Required Date: 2/17/2012

Start Qty: 1.00

Required Qty: 1.00

AN960JD416  
Washer

NAS1149D0463J Purchased No 120 Each 8.0000 20

*m119078 SP SP*

D3195-041  
Bracket Assembly

Manufactured No Location ST351 Loc Qty 8 8

*2 2 762078 SP*

D3195-043  
Bracket Assembly

Manufactured No 120 Each 11.0000

*2 2 SP*

D3196-1  
Bar

Manufactured No Location ST246A Loc Qty 11

*1X 1X SP 1.*

D3196-3  
Bar

Manufactured No Location ST260 Loc Qty 4 4

*1X SP 1.*

D3196-4  
Bar

Manufactured No Location ST260 Loc Qty 1 1

*1X SP 1.*

D3197-041  
Bar Assembly

Manufactured No Location ST260 Loc Qty 2 2

*1X 278918 SP SP*

# Picklist Print

Monday, February 13, 2012 8:24:46 AM

Page 3

Work Order ID: 80159

Parent Item: D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 2/13/2012

Required Date: 2/17/2012

Start Qty: 1.00

Required Qty: 1.00

D3198-1  
Fitting

Manufactured No 120 Each 12.0000 4 SP 4

D3268-1  
Placard

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	ST246A	12		
	79155	12		

D3546-1  
Clip

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	ST246A	8		
	76058	8		

D3551-11  
Hook and Loop Tie

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	ST245	14		
	73444	14		

D412-702-069  
Grommet CH7W1

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	ST246A	10		
	79156	10		

D4387-041  
Harness Assembly

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	FG125	5		
	79506	5		

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	quar	5		
	72273	5		
	ST263	24		
	77953	24		

# Picklist Print

Monday, February 13, 2012 8:24:47 AM

Page 4

Work Order ID: 80159

Parent Item: D412-702-021

Start Date: 2/13/2012

Required Date: 2/17/2012

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Qty: 1.00

Required Qty: 1.00

D4387-043  
Harness Assembly

Manufactured No 120 Each 8.0000 4 SP

MS21042L4  
Nut

Purchased No 120 Each 5,393.0000 12 SP 4X

MS24694-S152  
Screw

Purchased No 120 Each 39.0000 8 SP 12X

MS24694-ST54  
SCREW

Purchased No 120 Each 53.0000 8 SP 8X 12-03-13

Location Loc Qty Loc Code

ST263 8

78160 8

ST300 5393

117441 51

117601 157

118451 133

119017 200

119075 4852

ST290 39

116440 1

119108 38

ST290 28

119022 28

QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
X						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
	X					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		X				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
			X			D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4-point
				X		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
1	1		1	1		D412-702-069	GROMMET KIT
2	2					D3195-041	BRACKET
2	2					D3195-043	BRACKET
1	1			1		D3196-1	BAR
1	1		1			D3196-3	BAR
1	1					D3196-4	BAR
2	2					D3197-041	BAR
4	4					D3198-1	FITTING
2	2					D3268-1	PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
2	2					D3546-1	CLIP
4	4					AN4-5A	BOLT
4	4					AN4-13A	BOLT
8	8					AN4-20A	BOLT
20	20					AN960JD416	WASHER (OR NAS1149D0463J)
12	12					MS21042L4	NUT (OR MS21042-4)
8	2		6	2		MS24694-S152	SCREW
8	2		6	2		MS24694-S154	SCREW

QTY -069	Part Number	Description
X	D412-702-069	GROMMET KIT
24	D3619-2	GROMMET
1	D3619-2T1	HOLE PUNCH
1	D3619-2T2	STRIKER BLOCK
1	D3619-2T3	PUNCH
1	D3619-2T4	DIE

\* COPYRIGHT © 2010 BY DART AEROSPACE LTD \*  
 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED  
 OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: A  
 Date: 10.12.01

**REFERENCE ONLY**

## **DART SERVICE INSTRUCTION**

**TO AMEND IIN-D412-702-1 REV. A,  
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS**

REF. TCCA STC: SH04-7

REF. FAA STC: SR01997NY

REF. EASA STC: EASA.IM.R.S.00710

### **PURPOSE**

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

### **CHANGE**

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

Old Harness P/N	Used On	New Harness P/N	Effectivity
D3446-041	D412-702-021	D4387-041	CHG 003 and subsequent
	D412-702-023		CHG 002 and subsequent
	D412-702-027	D4387-043	CHG 003 and subsequent
	D412-702-029		CHG 002 and subsequent
D3446-043	D412-702-021	D4387-043	CHG 003 and subsequent
	D412-702-025		CHG 002 and subsequent

Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
BRANCH	
DAO # 01-O-01	
APPROVED	
BY:	<i>[Signature]</i>
D. SHEPHERD (DE # 02)	
DATE:	11.05.09
CERT. NO.:	SH04-7
ISSUE NO.:	3

A	NEW ISSUE	MB	11.05.09
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>LB</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>LB</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>GP</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9559	SHEET 1 OF 1
APPROVED	<i>MS</i>	TITLE	SCALE
DE APPR.	<i>MS</i>	Harness Change	NTS
DATE	11.05.09	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	